WHAT IS CLAIMED IS

1. A semiconductor substrate comprising a silicon substrate; a silicon germanium layer formed on the silicon substrate; and a silicon layer formed on the silicon germanium layer,

at least one of an isotope composition ratio of one Si isotope and an isotope composition ratio of one Ge isotope of at least one of the silicon substrate, the silicon germanium layer and the silicon layer being above 95%.

2. A semiconductor substrate comprising a silicon germanium substrate; and a silicon layer formed on the silicon germanium substrate,

at lest one of an isotope composition ratio of one Si isotope and an isotope composition ratio of one Ge isotope of at least one of the silicon germanium substrate and the silicon layer being above 95%.

3. A semiconductor substrate comprising a base substrate and a silicon layer bonded to each other with an insulation film formed therebetween,

an isotope composition ratio of one Si isotope of at least one of the base substrate and the silicon layer being above 95%.

4. A semiconductor substrate according to claim 3, wherein

carbon atoms are implanted in the silicon layer nearer to the interface between the silicon layer and the insulation

film.

5. A semiconductor substrate according to claim 4, wherein

the carbon atoms are implanted so that a concentration of the carbon atoms can be above 1×10^{20} cm^{-3} and below 1×10^{21} cm^{-3}.

6. A semiconductor substrate comprising a base substrate; a silicon germanium layer formed on the base substrate with an insulation film formed therebetween; and a silicon layer formed on the silicon germanium layer,

one of an isotope composition ratio of one Si isotope and an isotope composition ratio of one Ge isotope of at least one of the silicon germanium layer and the silicon layer being above 95%.

7. A semiconductor substrate according to claim 1, wherein

a plane orientation of the surface of the silicon layer is {100}, {113} or {011}.

8. A semiconductor substrate according to claim 2, wherein

a plane orientation of the surface of the silicon layer is {100}, {113} or {011}.

9. A semiconductor substrate according to claim 3, wherein

a plane orientation of the surface of the silicon layer is {100}, {113} or {011}.

10. A semiconductor substrate according to claim 6,

wherein

a plane orientation of the surface of the silicon layer is {100}, {113} or {011}.

11. A method for fabricating a semiconductor substrate comprising the steps of:

forming a silicon germanium layer on a silicon substrate, and

forming a silicon layer on the silicon germanium layer,

the silicon germanium layer or the silicon layer being formed by using a raw material gas in which at least one of an isotope composition ratio of one Si isotope and an isotope composition ratio of one Ge isotope is above 95% in at least one of the step of forming a silicon germanium layer and the step of forming a silicon layer.

12. A method for fabricating a semiconductor substrate comprising the step of forming a silicon layer on a silicon germanium substrate,

the silicon layer being formed by using a raw material gas having an above 95% isotope composition ratio of one Si isotope in the step of forming the silicon layer.

13. A method for fabricating a semiconductor substrate comprising the step of:

forming an insulation film on one surface of a silicon substrate having an above 95% isotope composition ratio of one Si isotope;

bonding the insulation film to a base substrate; and

thinning the silicon substrate at the other surface of the silicon substrate.

14. A method for fabricating a semiconductor substrate according to claim 13, further comprising

the step of implanting carbon atoms into a region of the silicon substrate nearer to said one surface thereof before the step of forming the insulation film.

15. A method for fabricating a semiconductor substrate according to claim 13, further comprising

the step of implanting carbon atoms into the silicon substrate nearer to the interface between the silicon substrate and the insulation film after the step of forming the insulation film and before bonding the insulation film to the base substrate.

16. A method for fabricating a semiconductor substrate according to claim 13, further comprising

the step of implanting carbon atoms into the silicon layer nearer to the interface between the silicon layer of said thinned silicon substrate and the insulation film after the step of thinning the silicon substrate.

17. A method for fabricating a semiconductor substrate comprising the steps of:

forming a silicon layer on one surface of a silicon substrate by using a raw material gas having an 95% isotope composition ratio of one Si isotope;

forming an insulation film on the silicon layer;

bonding a base substrate to the insulation film; and

thinning the silicon substrate at the other surface of the silicon substrate.

18. A method for fabricating a semiconductor substrate according to claim 17, further comprising

the step of implanting carbon atoms into the silicon layer near the surface thereof after the step of forming the silicon layer and before the step of forming the insulation film.

19. A method for fabricating a semiconductor substrate according to claim 17, further comprising

the step of implanting carbon atoms into the silicon layer nearer to the interface between the silicon layer and the insulation film after the step of forming the insulation film and before the step of bonding the base substrate.

20. A method for fabricating a semiconductor substrate according to claim 17, further comprising

the step of implanting carbon atoms into the silicon layer nearer to the interface between the silicon layer and the insulation film after the step of thinning the silicon substrate.

21. A method for fabricating a semiconductor substrate comprising the steps of:

bonding a silicon substrate to a base substrate with an insulation film formed therebetween,

thinning the silicon substrate on the side of the silicon substrate;

forming a silicon germanium layer on said thinned silicon substrate; and

the step of forming a silicon layer on the silicon germanium layer,

the silicon germanium layer or the silicon layer being formed by using a raw material gas in which at least one of an isotope composition ratio of one Si isotope and an isotope composition ratio of one Ge isotope is above 95% in at least one of the step of forming a silicon germanium layer and the step of forming a silicon layer.

22. A method for fabricating a semiconductor substrate comprising the steps of:

burying an insulation film in a silicon substrate;

forming a silicon germanium layer on the silicon substrate with the insulation film buried in; and

forming a silicon layer on the silicon germanium layer,

the silicon germanium layer or the silicon layer being formed by using a raw material gas in which at least an isotope composition ratio of one Si isotope and an isotope composition ratio of one Ge isotope is above 95% in at least one of the step of forming a silicon germanium layer and the step of forming a silicon layer.

23. A method for fabricating a semiconductor substrate comprising the steps of:

forming a silicon germanium layer on a silicon substrate;

forming a silicon layer on the silicon germanium layer; and

burying an insulation film in the silicon substrate,

the silicon germanium layer or the silicon layer being formed by using a raw material gas in which at least one of an isotope composition ratio of an Si isotope and an isotope composition ratio of a Ge isotope is above 95% in at lest one of the step of forming a silicon germanium layer and the step of forming a silicon layer.

24. A method for fabricating a semiconductor substrate comprising the steps of:

forming a silicon germanium layer on a silicon substrate;

burying an insulation film in the silicon substrate; and

forming a silicon layer on the silicon germanium layer,

the silicon germanium layer or the silicon layer being formed by using a raw material gas in which at least one of an isotope composition ratio of an Si isotope and an isotope composition ratio of a Ge isotope is above 95% in at least one of the step of forming a silicon germanium layer and the step of forming a silicon layer.